ELSEVIER

Journal of Materials Processing Technology 141 (2003) 447–448

Journal of Materials Processing Technology

www.elsevier.com/locate/jmatprotec

Author Index of Volume 141

Aksoy, M., 228
Albert, S.K., 60
Alinger, M.J., 411
Alkorta, J., 313
Alves, M.L., 395
Amigó, V., 117
Andreoli, M., 351, 370
Antti, A.L., 41
Ávila, A.F., 101

Bartier, O., 276
Baselga, J., 123
Bhaduri, A.K., 60
Bhattacharyya, B., 295
Bolt, P.J., 197
Bousshine, L., 181
Bravo, J., 123
Brocchi, E.A., 370
Buisson, M., 276
Burlat, M., 197

Cameron, D.C., 127
Carvalho, R.J., 370
Çelik, H., 67
Ceylan, M., 243
Chaaba, A., 181
Chakrabarti, A.K., 404
Chakraborty, K., 404
Chattopadhyay, A.B., 404
Chen, F.L., 213
Chiba, R., 351
Cho, J.R., 109
Costa, A.P., 163

Danninger, H., 379
Das, C.R., 60
Dixit, P.M., 256
Doicin, C.V., 9
Draganescu, F., 9
Dwivedi, S.N., 155

Ehmann, K.F., 16
El Abdi, R., 276
Elharif, A., 181
Estrada-Diaz, P., 93

Fernandes, J.L.M., 395
Ferragut, R., 35
Fihri Fassi, H., 181
Fischer, O., 132
Furushiro, N., 365

Galantucci, L.M., 266
Gheorghe, M., 9
Gil Sevillano, J., 313
Gong, Y., 16
Greitmann, M., 163
Guo, Q., 29
Gupta, S., 256

Hambli, R., 234
Hansson, L., 41
Hashmi, M.S.J., 127
He, S., 29
Houbaert, Y., 132
Huang, H., 329
Hyder, S.J., 1

İpek, R., 189

Kals, H.J.J., 143
Kaneko, S., 365
Kang, S.S., 109
Karamış, M.B., 189, 302
Kempulraj, G., 60
Kim, S.H., 251
Klamecki, B.E., 385
Koralay, H., 243
Kulkarni, M.S., 174

Lahiri, A.K., 219
Lee, J.-Y., 337
Lemma, E., 213
Lim, H.-J., 251
Lim, Y.-M., 251
Lin, C., 16
Lindegren, M., 77
Liu, J.R., 251
López-Hirata, V.M., 93
Lutters, D., 143

Ma, K., 420
Mansorzadeh, S., 138
Mariappan, V., 174
Martins, P.A.F., 395
Matsuoka, S.-i., 207
Mauvoisin, G., 276
McNamara, B.P., 127
Mentink, R.J., 143
Michel, J.F., 439
Miyamoto, S., 207
Moon, S.J., 109
Moon, Y.H., 109
Moreno, J.F., 117
Morshed, M.M., 127
Moshksar, M.M., 138
Murai, T., 207

Na, Y.-S., 337
Nair, F., 302
Nakae, H., 202
Nayebi, A., 276
Nishio, M., 29

Oki, Y., 207
Omirou, S.L., 343
Orhan, N., 228
Özdemir, N., 228
Özel, T., 284

Paniagua-Mercado, A.Ma., 93
Park, N.-K., 337
Petzoldt, F., 319
Phaniraj, M.P., 219
Picart, P., 439
Pierola, I.F., 123
Pohl, H., 319
Puri, A.B., 295

Quintino, L., 163

Radhakrishnan, V., 51
Rama, S.C., 420
Rodrigues, J.M.C., 395
Romero, F., 117
Ros-Yañez, T., 132

Saito, Y., 365
Sakai, T., 365
Šalak, A., 379
Salvador, M.D., 117
Schipper, D.J., 197
Schneider, J., 132
Selçuk, B., 189
Selecká, M., 379
Seo, E.S.M., 351, 370
Serrano, B., 123
Shaji, S., 51
Sharan, A., 155
Simchi, A., 319
Siores, E., 213
Smith, L.M., 420
Soares, E.P., 370
Solves, C., 117
Somoza, A., 35
Spina, R., 266
Streppel, A.H., 143
Sun, B., 29

Taşdemirci, A., 302
Tolley, A., 35
Torriani, I., 35

Elsevier B.V.
doi:10.1016/S0924-0136(03)00919-1

Utsunomiya, H., 365

van der Heide, E., 197
Van Tyne, C.J., 411
Venkata Reddy, N., 256
Vieira, E.L.S., 101

Wang, J., 29, 213
Wanheim, T., 77
Wiwe, B., 77

Yang, C.C., 202
Yang, F., 431
Yasuda, G., 357
Yavuz, H., 243
Yeom, J.-T., 337
Yilbas, B.S., 1
Yilmaz, O., 67
Yin, L., 329
Yu, J., 431

Zhang, B., 431
Zhang, J.M., 420
Zeren, A., 86
Zeren, M., 86
Zhou, L., 329

ELSEVIER

Journal of Materials Processing Technology 141 (2003) 449–454

Journal of Materials Processing Technology

www.elsevier.com/locate/jmatprotec

Subject Index of Volume 141

A356 alloy
Grain refinement of Al–Si alloy (A356) by melt thermal treatment, 29
A2 tool steel
Evolution of die surfaces during repeated stretch-bend sheet steel deformation, 411
Abrasive water jet
Striation formation mechanisms on the jet cutting surface, 213
Activation energy
The crystal growth kinetics of $Bi_2Sr_2CaCu_3O_x$ glass-ceramics, 243
Adhesion
Stress and adhesion in DLC coatings on 316L stainless steel deposited by a neutral beam source, 127
Age-hardenable alloys
Precipitation kinetics in Al–Zn–Mg commercial alloys, 35
Agglomerated fluxes
Chemical and structural characterization of the crystalline phases in agglomerated fluxes for submerged-arc welding, 93
AISI 1020 and 5115 steels
A study on friction and wear behaviour of carburized, carbonitrided and borided AISI 1020 and 5115 steels, 189
Al 3105
Determination of the forming limit diagram for Al 3105 sheet, 138
Al-based alloys
Precipitation kinetics in Al–Zn–Mg commercial alloys, 35
Alloy 718
Simulation of microstructures for Alloy 718 blade forging using 3D FEM simulator, 337
Aluminum foam
The effects of viscosity and cooling conditions on the foamability of aluminum alloy, 202
Anisotropy
The spread rolling of IF steel strip, 365
Avrami exponent
The crystal growth kinetics of $Bi_2Sr_2CaCu_3O_x$ glass-ceramics, 243
AZ31B
Effects of extrusion conditions on microstructure and mechanical properties of AZ31B magnesium alloy extrusions, 207

Bending models
Determining material properties of sheet metal on a press brake, 143
Bipotential
Numerical simulation of orthogonal cutting by incremental elastoplastic analysis and finite element method, 181
Blade forging
Simulation of microstructures for Alloy 718 blade forging using 3D FEM simulator, 337
Blanking design
BLANKSOFT: a code for sheet metal blanking processes optimization, 234
Blanking processes
BLANKSOFT: a code for sheet metal blanking processes optimization, 234
Blanking software
BLANKSOFT: a code for sheet metal blanking processes optimization, 234
Blend morphology
Effect of the morphology of two phase polymer blends on glass transition temperature, 123
Boron
The effect of boron liquid phase sintering on properties of Ni-, Mo- and Cr-alloyed structural steels, 379
Boronizing
A study on friction and wear behaviour of carburized, carbonitrided and borided AISI 1020 and 5115 steels, 189
Brazing
Microstructural analysis and discontinuities in the brazed zone of copper tubes, 302

Carbon steels
The applicability of neural network model to predict flow stress for carbon steels, 219
Carbonitriding
A study on friction and wear behaviour of carburized, carbonitrided and borided AISI 1020 and 5115 steels, 189
Cavities
Development of knowledge-based engineering module for diagnosis of defects in casting and interpretation of defects by non-destructive testing, 155
CBN cutting tools
Modeling of hard part machining: effect of insert edge preparation in CBN cutting tools, 284
Chamfered edge preparation
Modeling of hard part machining: effect of insert edge preparation in CBN cutting tools, 284
Chatter suppression
Chatter suppression with multiple time-varying parameters in turning, 431
Chlorination
Silicon tetrachloride production by chlorination method using rice husk as raw material, 351
A mathematical model for silicon chlorination, 370
CNC interpolator
Space curve interpolation for CNC machines, 343
Colmonoy 6
A novel procedure for fabrication of wear-resistant bushes for high-temperature application, 60
Coolant
Analysis of process parameters in surface grinding with graphite as lubricant based on the Taguchi method, 51
Copper tube
Microstructural analysis and discontinuities in the brazed zone of copper tubes, 302
Coulomb friction model
Finite element investigation on spring-back characteristics in sheet metal U-bending process, 109

Elsevier B.V.
doi:10.1016/S0924-0136(03)00920-8

Coulomb's dry friction
Numerical simulation of orthogonal cutting by incremental elastoplastic analysis and finite element method, 181
Crystalline phases
Chemical and structural characterization of the crystalline phases in agglomerated fluxes for submerged-arc welding, 93
Current density control
Fabrication of cylindrical micropins with various diameters using DC current density control, 251
Cutting process
Numerical simulation of orthogonal cutting by incremental elastoplastic analysis and finite element method, 181
Cutting torque
Models of machine tool efficiency and specific consumed energy, 9

Dendritic
A study on the grindability of niobium microalloyed forging quality HSLA steels, 404
Density
The effect of boron liquid phase sintering on properties of Ni-, Mo- and Cr-alloyed structural steels, 379
Depth of work hardening
Multiple response optimization for improved machined surface quality, 174
Diffusion bonding
Effect of graphite shape in vacuum-free diffusion bonding of nodular cast iron with gray cast iron, 228
Diffusion welding
Electrical and thermal properties of the interface at diffusion-bonded and soldered 304 stainless steel and copper bimetal, 67
Direct metal laser sintering
On the development of direct metal laser sintering for rapid tooling, 319
Distributed autonomous control
Distributed autonomous control of modular robot systems using parallel programming, 357
DLC
Stress and adhesion in DLC coatings on 316L stainless steel deposited by a neutral beam source, 127
Drill motion
Analysis of dynamic characteristics of micro-drills, 16
Ductile fracture
Ductile fracture prediction in axisymmetric upsetting using continuum damage mechanics, 256
Dye penetrant
Development of knowledge-based engineering module for diagnosis of defects in casting and interpretation of defects by non-destructive testing, 155
Dynamic recrystallization
Simulation of microstructures for Alloy 718 blade forging using 3D FEM simulator, 337
Dynamometer
A study on the grindability of niobium microalloyed forging quality HSLA steels, 404

Elastoplastic model
Numerical simulation of orthogonal cutting by incremental elastoplastic analysis and finite element method, 181
Electrical conductivity
Electrical and thermal properties of the interface at diffusion-bonded and soldered 304 stainless steel and copper bimetal, 67
Electrical steel
Production of high silicon steel for electrical applications by thermomechanical processing, 132
Electrochemical etching
Fabrication of cylindrical micropins with various diameters using DC current density control, 251
Epifluorescence microscopy
Effect of the morphology of two phase polymer blends on glass transition temperature, 123
Equal-channel angular pressing
A comparison of FEM and upper-bound type analysis of equal-channel angular pressing (ECAP), 313
Extrusion conditions
Effects of extrusion conditions on microstructure and mechanical properties of AZ31B magnesium alloy extrusions, 207

Fabrication
A novel procedure for fabrication of wear-resistant bushes for high-temperature application, 60
Face milling
Models of machine tool efficiency and specific consumed energy, 9
FE simulations of cutting
Modeling of hard part machining: effect of insert edge preparation in CBN cutting tools, 284
FEM analysis
A comparison of FEM and upper-bound type analysis of equal-channel angular pressing (ECAP), 313
Filler metal
Microstructural analysis and discontinuities in the brazed zone of copper tubes, 302
Finite element method
Numerical simulation of orthogonal cutting by incremental elastoplastic analysis and finite element method, 181
Evaluation of filling conditions of injection moulding by integrating numerical simulations and experimental tests, 266
Flexural motion
Laser pulse heating and flexural wave generation during treatment of metallic surfaces, 1
Flow stress
The applicability of neural network model to predict flow stress for carbon steels, 219
Foaming mechanism
The effects of viscosity and cooling conditions on the foamability of aluminum alloy, 202
Forming limit diagram
Proposing a better forming limit diagram prediction: a comparative study, 101
Determination of the forming limit diagram for Al 3105 sheet, 138

Geometrical cross-sections
Analysis of dynamic characteristics of micro-drills, 16
Glass transition temperature
Effect of the morphology of two phase polymer blends on glass transition temperature, 123
Grain refinement
Grain refinement of Al–Si alloy (A356) by melt thermal treatment, 29
Graphite
Analysis of process parameters in surface grinding with graphite as lubricant based on the Taguchi method, 51
Gray cast iron
Effect of graphite shape in vacuum-free diffusion bonding of nodular cast iron with gray cast iron, 228
Grinding
Analysis of process parameters in surface grinding with graphite as lubricant based on the Taguchi method, 51

Hard metals
Laser beam welding hard metals to steel, 163
Hard part machining
Modeling of hard part machining: effect of insert edge preparation in CBN cutting tools, 284

Hardface deposit
A novel procedure for fabrication of wear-resistant bushes for high-temperature application, 60
Hardness
Experimental and numerical analyses of instrumented and continuous indentation of treated steels, 276
Microstructural analysis and discontinuities in the brazed zone of copper tubes, 302
Heat treated steels
Experimental and numerical analyses of instrumented and continuous indentation of treated steels, 276
Heat treatment
Stress relaxation properties of prestressed steel wires, 86
Heating
Laser pulse heating and flexural wave generation during treatment of metallic surfaces, 1
Hexahedral elements
Finite element remeshing in metal forming using hexahedral elements, 395
High silicon steel
Production of high silicon steel for electrical applications by thermomechanical processing, 132
High speed grinding
High speed grinding of silicon nitride with resin bond diamond wheels, 329
Homogenization
Effects of extrusion conditions on microstructure and mechanical properties of AZ31B magnesium alloy extrusions, 207
Hot working
The applicability of neural network model to predict flow stress for carbon steels, 219

IF steel
The spread rolling of IF steel strip, 365
Implant
Stress and adhesion in DLC coatings on 316L stainless steel deposited by a neutral beam source, 127
Inclusions
Development of knowledge-based engineering module for diagnosis of defects in casting and interpretation of defects by non-destructive testing, 155
Indentation method
Experimental and numerical analyses of instrumented and continuous indentation of treated steels, 276
Inference engine
Development of knowledge-based engineering module for diagnosis of defects in casting and interpretation of defects by non-destructive testing, 155
Injection moulding
Evaluation of filling conditions of injection moulding by integrating numerical simulations and experimental tests, 266
Inverse identification
Size effects on the constitutive behaviour for brass in sheet metal forming, 439

Jaumann rate of Kirchhoff stress
Finite element investigation on spring-back characteristics in sheet metal U-bending process, 109
Joint clearance
Microstructural analysis and discontinuities in the brazed zone of copper tubes, 302

Kinetics
Silicon tetrachloride production by chlorination method using rice husk as raw material, 351
A mathematical model for silicon chlorination, 370
Knowledge base
Development of knowledge-based engineering module for diagnosis of defects in casting and interpretation of defects by non-destructive testing, 155

Large deformation elasto-plastic finite element analysis
Ductile fracture prediction in axisymmetric upsetting using continuum damage mechanics, 256
Laser
Laser pulse heating and flexural wave generation during treatment of metallic surfaces, 1
Laser welding
Laser beam welding hard metals to steel, 163
Lateral spread
The spread rolling of IF steel strip, 365
Loss functions
Multiple response optimization for improved machined surface quality, 174
Lubricant
Analysis of process parameters in surface grinding with graphite as lubricant based on the Taguchi method, 51

Machine tool efficiency
Models of machine tool efficiency and specific consumed energy, 9
Machining
A novel procedure for fabrication of wear-resistant bushes for high-temperature application, 60
Magnetic
Development of knowledge-based engineering module for diagnosis of defects in casting and interpretation of defects by non-destructive testing, 155
Magnetic treatment
Residual stress reduction by pulsed magnetic treatment, 385
Mass transfer
A mathematical model for silicon chlorination, 370
Material behaviour
Continuous shear—a method for studying material elements passing a stationary shear plane, 77
Size effects on the constitutive behaviour for brass in sheet metal forming, 439
Material models
Determining material properties of sheet metal on a press brake, 143
Material properties
Determining material properties of sheet metal on a press brake, 143
Material testing
Continuous shear—a method for studying material elements passing a stationary shear plane, 77
Mathematical model
A mathematical model for silicon chlorination, 370
Maximum chip thickness
High speed grinding of silicon nitride with resin bond diamond wheels, 329
Mechanical properties
Effects of extrusion conditions on microstructure and mechanical properties of AZ31B magnesium alloy extrusions, 207
On the development of direct metal laser sintering for rapid tooling, 319
Mechanical property
The spread rolling of IF steel strip, 365
Melt thermal treatment
Grain refinement of Al–Si alloy (A356) by melt thermal treatment, 29
Membrane element method
A two-dimensional approach for simulation of hydroforming expansion of tubular cross-sections without axial feed, 420

Meta-dynamic recrystallization
Simulation of microstructures for Alloy 718 blade forging using 3D FEM simulator, 337
Metal foam
The effects of viscosity and cooling conditions on the foamability of aluminum alloy, 202
Metal forming
Wear of soft tool materials in sliding contact with zinc-coated steel sheet, 197
Finite element remeshing in metal forming using hexahedral elements, 395
Microcontrollers
Distributed autonomous control of modular robot systems using parallel programming, 357
Micro-crack
Ductile fracture prediction in axisymmetric upsetting using continuum damage mechanics, 256
Micro-drills
Analysis of dynamic characteristics of micro-drills, 16
Micromachining
Fabrication of cylindrical micropins with various diameters using DC current density control, 251
Micropin
Fabrication of cylindrical micropins with various diameters using DC current density control, 251
Microstructure
Microstructural evolution of Ti–6Al–4V during the sintering of microspheres of Ti for orthopedic implants, 117
Laser beam welding hard metals to steel, 163
On the development of direct metal laser sintering for rapid tooling, 319
Microstructure control
Simulation of microstructures for Alloy 718 blade forging using 3D FEM simulator, 337
Microwave drying
The effect of microwave drying on Norway spruce woods strength: a comparison with conventional drying, 41
Modelling
Size effects on the constitutive behaviour for brass in sheet metal forming, 439
Modular robot systems
Distributed autonomous control of modular robot systems using parallel programming, 357
Motion generation
Space curve interpolation for CNC machines, 343
Multiple response optimization
Multiple response optimization for improved machined surface quality, 174
Multiple spark discharges
Modelling and analysis of the wire-tool vibration in wire-cut EDM, 295

Neural network
The applicability of neural network model to predict flow stress for carbon steels, 219
Neutral beam
Stress and adhesion in DLC coatings on 316L stainless steel deposited by a neutral beam source, 127
Nodular cast iron
Effect of graphite shape in vacuum-free diffusion bonding of nodular cast iron with gray cast iron, 228
Numerical prediction
Proposing a better forming limit diagram prediction: a comparative study, 101

Optimization
Analysis of process parameters in surface grinding with graphite as lubricant based on the Taguchi method, 51
Ordered alloys
Production of high silicon steel for electrical applications by thermomechanical processing, 132

Parallel programming
Distributed autonomous control of modular robot systems using parallel programming, 357
Parameters
Laser beam welding hard metals to steel, 163
Penetration
Microstructural analysis and discontinuities in the brazed zone of copper tubes, 302
Phosphor dendrite
Microstructural analysis and discontinuities in the brazed zone of copper tubes, 302
Polymer blends
Effect of the morphology of two phase polymer blends on glass transition temperature, 123
Porosity
Microstructural analysis and discontinuities in the brazed zone of copper tubes, 302
Porous coating
Microstructural evolution of Ti–6Al–4V during the sintering of microspheres of Ti for orthopedic implants, 117
Positioning error
Microstructural analysis and discontinuities in the brazed zone of copper tubes, 302
Powder metallurgy
The effect of boron liquid phase sintering on properties of Ni-, Mo- and Cr-alloyed structural steels, 379
Prealloyed powder
The effect of boron liquid phase sintering on properties of Ni-, Mo- and Cr-alloyed structural steels, 379
Precipitation
Precipitation kinetics in Al–Zn–Mg commercial alloys, 35
Prestressed steel wires
Stress relaxation properties of prestressed steel wires, 86
Process modeling
A two-dimensional approach for simulation of hydroforming expansion of tubular cross-sections without axial feed, 420

Rapid prototyping
On the development of direct metal laser sintering for rapid tooling, 319
Rapid tooling
On the development of direct metal laser sintering for rapid tooling, 319
Recrystallisation
Production of high silicon steel for electrical applications by thermomechanical processing, 132
Reduction
Residual stress reduction by pulsed magnetic treatment, 385
Removal mechanism
High speed grinding of silicon nitride with resin bond diamond wheels, 329
Response surface methodology
Multiple response optimization for improved machined surface quality, 174
Reverse engineering
Evaluation of filling conditions of injection moulding by integrating numerical simulations and experimental tests, 266
Rice husk
Silicon tetrachloride production by chlorination method using rice husk as raw material, 351
Robust design
Multiple response optimization for improved machined surface quality, 174

Scaling effects
Size effects on the constitutive behaviour for brass in sheet metal forming, 439
Shear
Continuous shear—a method for studying material elements passing a stationary shear plane, 77
Sheet metal U-bending process
Finite element investigation on spring-back characteristics in sheet metal U-bending process, 109
Shrinkage
Development of knowledge-based engineering module for diagnosis of defects in casting and interpretation of defects by non-destructive testing, 155
Silica
Silicon tetrachloride production by chlorination method using rice husk as raw material, 351
Silicon
A mathematical model for silicon chlorination, 370
Silicon nitride
High speed grinding of silicon nitride with resin bond diamond wheels, 329
Silicon tetrachloride
Silicon tetrachloride production by chlorination method using rice husk as raw material, 351
Silver dendrite
Microstructural analysis and discontinuities in the brazed zone of copper tubes, 302
Simulation
A two-dimensional approach for simulation of hydroforming expansion of tubular cross-sections without axial feed, 420
Sintering
Microstructural evolution of Ti–6Al–4V during the sintering of microspheres of Ti for orthopedic implants, 117
Soft tooling
Wear of soft tool materials in sliding contact with zinc-coated steel sheet, 197
Soldering
Electrical and thermal properties of the interface at diffusion-bonded and soldered 304 stainless steel and copper bimetal, 67
Solid-state bonding
Effect of graphite shape in vacuum-free diffusion bonding of nodular cast iron with gray cast iron, 228
Specific consumed energy
Models of machine tool efficiency and specific consumed energy, 9
Specific energy
A study on the grindability of niobium microalloyed forging quality HSLA steels, 404
Spread rolling
The spread rolling of IF steel strip, 365
Spring-back investigation
Finite element investigation on spring-back characteristics in sheet metal U-bending process, 109
Steel powder
On the development of direct metal laser sintering for rapid tooling, 319
Steepest descent algorithms
Experimental and numerical analyses of instrumented and continuous indentation of treated steels, 276
Strain
Determination of the forming limit diagram for Al 3105 sheet, 138
Strain-hardening
A comparison of FEM and upper-bound type analysis of equal-channel angular pressing (ECAP), 313
Strength
The effect of microwave drying on Norway spruce woods strength: a comparison with conventional drying, 41
The effect of boron liquid phase sintering on properties of Ni-, Mo- and Cr-alloyed structural steels, 379
Stress
Stress and adhesion in DLC coatings on 316L stainless steel deposited by a neutral beam source, 127
Residual stress reduction by pulsed magnetic treatment, 385
Stress relaxation
Stress relaxation properties of prestressed steel wires, 86
Submerged-arc welding
Chemical and structural characterization of the crystalline phases in agglomerated fluxes for submerged-arc welding, 93
Superconducting
The crystal growth kinetics of $Bi_2Sr_2CaCu_3O_x$ glass-ceramics, 243
Surface integrity
A study on the grindability of niobium microalloyed forging quality HSLA steels, 404
Surface intersection
Space curve interpolation for CNC machines, 343
Surface striation
Striation formation mechanisms on the jet cutting surface, 213
Surface treatment
Laser pulse heating and flexural wave generation during treatment of metallic surfaces, 1

Taguchi method
Analysis of process parameters in surface grinding with graphite as lubricant based on the Taguchi method, 51
Test bend
Determining material properties of sheet metal on a press brake, 143
Texture
Production of high silicon steel for electrical applications by thermomechanical processing, 132
The spread rolling of IF steel strip, 365
Thermo-elastoplastic finite element analysis
Finite element investigation on spring-back characteristics in sheet metal U-bending process, 109
Thermomechanical processing
Production of high silicon steel for electrical applications by thermomechanical processing, 132
Three-dimensional remeshing
Finite element remeshing in metal forming using hexahedral elements, 395
Time-varying parameters
Chatter suppression with multiple time-varying parameters in turning, 431
Titanium alloys
Microstructural evolution of Ti–6Al–4V during the sintering of microspheres of Ti for orthopedic implants, 117
Titanium hydride
The effects of viscosity and cooling conditions on the foamability of aluminum alloy, 202
Titanium nitride coating
Evolution of die surfaces during repeated stretch-bend sheet steel deformation, 411
Tool wear
Wear of soft tool materials in sliding contact with zinc-coated steel sheet, 197
Tool wear prediction
BLANKSOFT: a code for sheet metal blanking processes optimization, 234
Tribometer
Wear of soft tool materials in sliding contact with zinc-coated steel sheet, 197
Tubular hydroforming
A two-dimensional approach for simulation of hydroforming expansion of tubular cross-sections without axial feed, 420

Tungsten carbide
Evolution of die surfaces during repeated stretch-bend sheet steel deformation, 411
Turning
Chatter suppression with multiple time-varying parameters in turning, 431

Ultrasonic
Development of knowledge-based engineering module for diagnosis of defects in casting and interpretation of defects by non-destructive testing, 155
Updated Lagrangian scheme
Finite element investigation on spring-back characteristics in sheet metal U-bending process, 109
Upper-bound analysis
A comparison of FEM and upper-bound type analysis of equal-channel angular pressing (ECAP), 313
Upsetting
Ductile fracture prediction in axisymmetric upsetting using continuum damage mechanics, 256

Viscosity
The effects of viscosity and cooling conditions on the foamability of aluminum alloy, 202

Wear behaviour
A study on friction and wear behaviour of carburized, carbonitrided and borided AISI 1020 and 5115 steels, 189
Wear-resistant bush
A novel procedure for fabrication of wear-resistant bushes for high-temperature application, 60
Weld overlay
Evolution of die surfaces during repeated stretch-bend sheet steel deformation, 411
Wire-cut EDM
Modelling and analysis of the wire-tool vibration in wire-cut EDM, 295
Wire-tool vibration
Modelling and analysis of the wire-tool vibration in wire-cut EDM, 295
Wood
The effect of microwave drying on Norway spruce woods strength: a comparison with conventional drying, 41

Yield criterion
Proposing a better forming limit diagram prediction: a comparative study, 101
Yield stress gradient
Experimental and numerical analyses of instrumented and continuous indentation of treated steels, 276

Zirconia
Evolution of die surfaces during repeated stretch-bend sheet steel deformation, 411